



HEARTS IN THE AMERICAS

Regional Workshop

Punta Cana, Dominican Republic
May 14-17, 2019





HEARTS IN THE AMERICAS

Regional Workshop

Module Systems for Monitoring

Norm Campbell

University of Calgary

Canada



Benefits of a standardized monitoring framework

The ability to

- evaluate the effort to prevent and control hypertension.
 - assess ‘care gaps’ and revise program.
 - learn from best (and worst) practices to optimize care and scale up of the best practices.
- compare interventions on a national, regional or clinic basis and across time.
- determine public health priorities based on need.
- predict future caseloads of chronic diseases.

Monitoring and evaluation

Analogy of a journey

We are going on a journey

- We don't have a map,
- We do not know where we are,
- We do not know where we are going,
- We will not know when or if we get to our destination.

**Do something
*crazy.***

Monitoring and evaluation

We are going to improve hypertension control.

- We do not know the current control rate,
- We do not know how we are going to improve the control rate (no strategic and operational plan),
- We will not know when or if the control rate will be increased,
- We do not have a target control rate.

A strategic and operational plan with monitoring and evaluation with a target and timeline is critical.

NOT DO

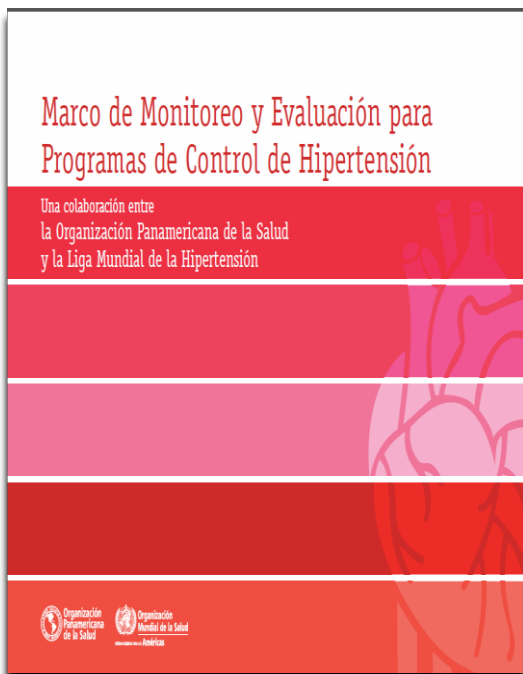


*Do something
crazy.*

Monitoring and evaluation

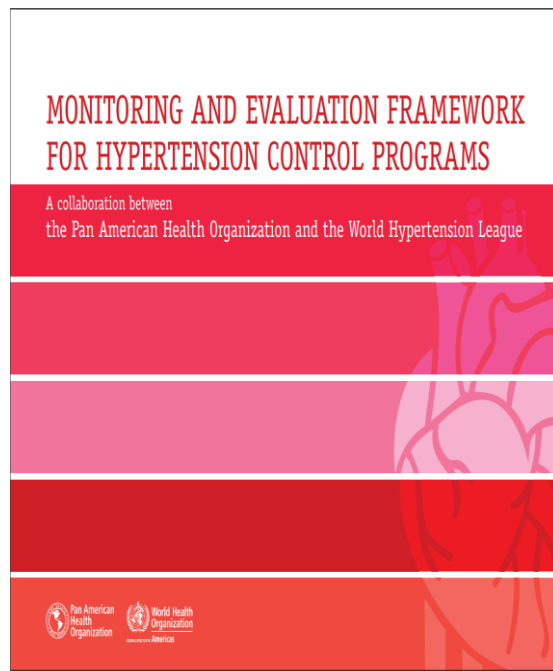
- Core indicators vs. optional (menu) indicators
- Baseline- where we are.
- Target and timeline- where we are going and when we plan to get there.
- Process and structure indicators- (monitor the strategic and operational plan (i.e., the vehicle, map and plan for the journey)).
- Quantitative indicators to monitor progress towards the target- the gas gage, GPS, altimeter, compass, speedometer and odometer

PAHO-WHL and HEARTS Monitoring Indicators - March 2018, revised March 2019

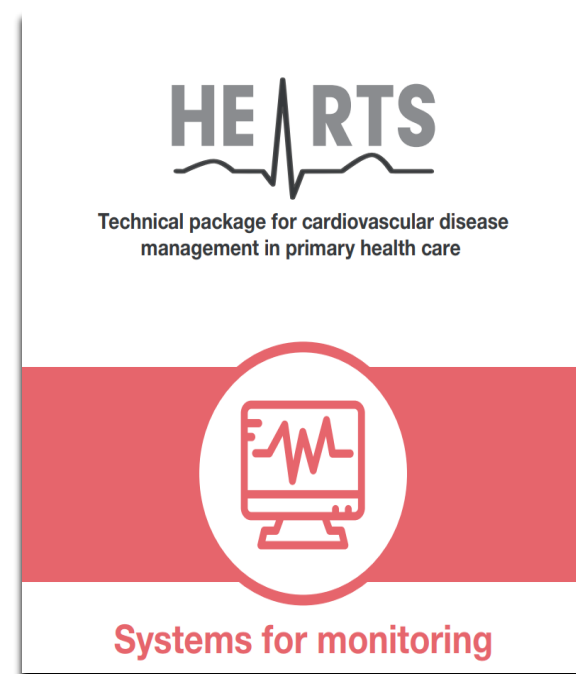


<http://iris.paho.org/xmlui/handle/123456789/34910>

MONITORING AND EVALUATION FRAMEWORK FOR HYPERTENSION PROGRAMS. A collaboration between the Pan American Health Organization and World Hypertension



<http://iris.paho.org/xmlui/handle/123456789/34877>



http://www.who.int/cardiovascular_diseases/heart/en/

CVD RISK MONITORING AND EVALUATION FRAMEWORK FOR ALL COUNTRIES. WHO and partner organizations

HEARTs and PAHO-WHL Indicators

CORE Indicators

- Intended to be used in all nations.
- 5 from HEARTs and 1 from PAHO-WHL.

Optional PAHO-WHL indicators

- Intended to be used in national hypertension control programs.
- Menu of 14 qualitative indicators and 33 quantitative indicators.

HEARTs CORE Health facility level indicator (Potentially under revision)

- **Six-monthly control of blood pressure among people treated for hypertension** (Proportion of patients registered for hypertensive treatment at the health facility whose blood pressure is controlled 6 months after treatment initiation).
 - **A**= Number of patients with controlled blood pressure (SBP <140 and DBP<90) at the last clinical visit in the most recent quarter (just before the reporting quarter) out of B.
 - **B**= Number of patients registered for treatment of hypertension during the quarter that ended 6 months previously.
 - Calculation: **A÷B**
- **To monitor short term progress towards improved hypertension control in the facility (compare facilities and time trends).**
- **Should be used with performance reporting.**
- **Recommended to have a local target** (e.g. 50% control rate by April 2019)
- **Uses data from the hypertension treatment register in the facility**
- **Reported every 3 months**

HEARTs CORE Subnational level aggregated indicators

- Control of blood pressure among people with hypertension within the programme (e.g. district, province, or state)
 - **A**= Cumulative number of registered patients with controlled blood pressure (SBP <140 and DBP <90) in the most recent quarter at all health facilities in a given geographical area, such as a district, province, or state.
 - **B**= Estimated number of people with hypertension at the subnational level.
 - Calculation: **A÷B**.
- To monitor progress towards population hypertension control with programme (disaggregate to compare facilities)
- Uses aggregated reports from all the health facilities reporting the hypertension indicator in a defined subnational area and an estimation of hypertension prevalence
- Recommended to have a local target
- Reported annually

HEARTs CORE Subnational level aggregated indicators

- Availability of core cardiovascular disease/diabetes drugs within the programme (e.g. district, province, or state)
 - **A**= number of health facilities in the programme reporting “no stock-out” of core CVD/Diabetes Mellitus drugs in the last quarter
 - **B**= Number of health facilities participating in the programme
 - Calculation: $A \div B$.
- To facilitate managers ensuring an uninterrupted core drug supply
- Reported quarterly
- Target is no stock outs of thiazide type diuretics, long acting calcium channel blocker, long acting angiotensin converting enzyme inhibitor (ACE-I) and angiotensin receptor blocker (ARB).

HEARTs CORE population level hypertension control (under revision)

- Proportion of all hypertensive people with controlled blood pressure in the population
 - A= Number of respondents with SBP <140 and DBP <90 who are being currently treated with medications for hypertension
 - B= Number of survey respondents with SBP ≥140 or DBP ≥90 OR who are currently treated with medicines for hypertension
 - Calculation: $A \div B$.
- To monitor progress towards population hypertension control
- Population-based sample survey (STEPS or similar survey).
- Recommended to have a national target
- Once every 3-5 years

HEARTs CORE Population-level indicator of control of hypertension

- Proportion of eligible persons receiving drug therapy and counseling.
 - A = Number of eligible survey participants who are receiving drug therapy and counselling.
 - B = Total number of eligible survey participants. (defined as aged 40 years and older (with a 10-year cardiovascular risk $\geq 30\%$), including those with existing cardiovascular disease)
 - Calculation: $A \div B$.
- Surrogate target to achieve hypertension control.
- Population-based sample survey (STEPS or similar survey).
- Reported once in 5 years.
- Recommended target is a 5% increase/year.

PAHO—WHL Quantitative, Process and structure indicators for hypertension control programs

- **PAHO—WHL Process and structure indicators**

- 14 steps that outline processes and structures that are believed necessary for a successful program

- **Quantitative indicators**

- Test the baseline and progress towards the programme target
- Blood pressure physical measures- 7 indicators (prevalence, diagnosis, treatment and control)
- Questionnaire surveys- 4 indicators
- Antihypertensive drugs prescriptions- 2 indicators
- Death rates associated with hypertension- 4 indicators
- Clinic- health facilities- 5 indicators

MENU

PAHO—WHL Quantitative, Process and structure indicators for hypertension control programs

- New interactive PAHO software to track CVD outcomes related to hypertension coming soon

Closing Comments

- We are going on a journey to control hypertension.
- We know the baseline data (hypertension prevalence, treatment and control rate), have a detailed action plan on what is going to be done, by whom and when and a target and timeline.
- Especially important is implementation in clinics combined with performance reporting !!!
- We will use global best standards to achieve our targets for the control of hypertension.

Key resources

- World Health Organization, *HEARTS: Technical package for cardiovascular disease management in primary health care*. 2016: Geneva, Switzerland. p. 1-73.
- *Improved Blood Pressure Control to Reduce Cardiovascular Disease Morbidity and Mortality: The Standardized Hypertension Treatment and Prevention Project*. J Clin Hypertens (Greenwich), 2016: p. 1284-1294.
- *Improved blood pressure control associated with a large-scale hypertension program*. JAMA, 2013. **310**(7): p. 699-705.
- *Standards for the Uniform Reporting of Hypertension in Adults Using Population Survey Data: Recommendations From the World Hypertension League Expert Committee*. The Journal of Clinical Hypertension, 2014. **16**(11): p. 773-781.
- *Implementing standardized performance indicators to improve hypertension control at both the population and healthcare organization levels*. J Clin Hypertens (Greenwich), 2017. **19**(5): p. 456-461.
- *The Outcomes Research Task Force and the Canadian Hypertension Education Program*. Can J Cardiol, 2006. **22**(7): p. 556-558